III. HISTORIC CONTEXT

The history of the Dagsboro Hundred and the town of Millsboro have been well documented by many (Scharf 1888, Carter 1980, and Hancock 1976, to name a few). Therefore, a very brief historic context was synthesized, followed by a brief oral history of the Warren family and the mill property. The choice to focus on a more personal view of the history of the mill was a joint decision between DelDOT and URS. On two occasions, in September 2002 and again in February 2004, URS had the good fortune to speak with Ralph, Rowland, and Betty Warren. Our intention was to learn more about the mill and the family that has owned it since the early 1920s, as well as address some inaccuracies cited by Ralph Warren in the 1999 Griffitts report. URS is grateful to the Warrens for their hospitality and openness during the interviews.

GENERAL HISTORY OF SUSSEX COUNTY AND DAGSBORO HUNDRED

Sussex County is Delaware's largest and southernmost county, with an area of approximately 950 square miles. It is bounded by Maryland to the south and west, Delaware Bay and Atlantic Ocean to the east, and Kent County, Delaware, on the north. The county is comprised of 13 hundreds, political units instituted by William Penn. These hundreds include Lewis and Rehoboth, Georgetown, Cedar Creek, Broadkiln, Indian River, Northwest Fork, Broad Creek, Nanticoke, Seaford, Little Creek, Dagsboro, Baltimore, and Gums borough (Scharf 1888).

In 1638, Swedish settlers established Fort Christiana in what is now Wilmington, Delaware. The first settlement in Sussex County was established in 1659, at the site of the town of Lewes, then called Hoerenkill (Hancock 1976). In subsequent years, the settlement grew to include agricultural lands managed by Cornelius Plockhoy. Dutch authorities at New Amstel (New Castle) controlled Sussex County until 1664, when possession of the territory passed to the English (Scharf 1888). Shortly after the English laid claim to the region, disputes over the actual boundaries began. Lord Baltimore of Maryland challenged the claim and, in 1672, sent Captain Thomas Jones to force settlers in Hoerenkill to pledge allegiance to Lord Baltimore or risk imprisonment and confiscation of their lands (Hancock 1976). In 1673, the Dutch regained possession of the region, which they maintained until 1674, when it returned to the English (Scharf 1888).

Most of Dagsboro Hundred belonged to the state of Maryland until 1763. In 1765, Mason and Dixon made the first survey to define the line between Maryland and Delaware, effectively incorporating Millsboro and Dagsboro Hundred into the state of Delaware (Scharff 1888). During the seventeenth century, forest and swamp wilderness dominated the landscape (Berger 1999). At this time, Lewis was the only town and, thus, the county's commercial and administrative center (Berger 1999). Transportation was limited to navigable waterways; therefore, most settlement developed along the larger creeks and rivers (Hancock 1976).

HISTORY OF BETTS POND AND THE WARREN MILL

Betts Pond is a historic millpond located along State Route 326 in Millsboro, Delaware (Plate 1). The pond itself dates to 1773, and according to Richard Carter (1980), may succeed an even earlier pond. Since its creation, the pond has powered several grist and sawmills; occasionally, the two existed simultaneously. Betts Pond empties into Millsboro Pond, which in turn empties into the Indian River. The pond has had many owners since its formation, and has gone by several different names in its lifetime (such as Burton's Upper Millpond and Benjamin Burton's Upper Gate, to name a few). The first known mill in this area was the Burton Mill, which was built in the place where the current Warren Mill sits (Carter 1980; Griffitts 1999). Benjamin Burton Sr. of Dagsboro Hundred, a member of one of the founding families of Sussex County, was the first to dam Fishing Creek to create the 1773 millpond for his sawmill and gristmill (Carter 1980; Griffitts 1999).

Benjamin Burton's family was one of the first to settle in Millsboro; in fact, his grandfather William Burton first began purchasing land in the area in 1677 (Carter 1980). For the first 120 years of its existence, the Burton family owned and maintained the pond (Carter 1980). Benjamin Burton Sr. died in 1783, leaving the mill property to his grandson of the same name. Benjamin (II), the grandson of the first, did not take over the mill until 1799, when he came of age (Carter 1980). In 1813, Benjamin (II) went on to become prominent citizen and lead a company of men in defense of Lewes, Delaware, against the British (Carter 1980).

After his death in 1824, Benjamin Burton (II) left half of his property to his brother Miers Burton and the other half to his 14-year-old nephew, also named Benjamin Burton (III), as he had no children (Carter 1980: 6). In order to distinguish young Benjamin from all the other Burtons in the area, he was sometimes referred to as Benjamin Burton of Daniel. Miers died in 1838 and his portion of the two mills and pond (Figure 3) eventually passed to his son Benjamin D. Burton (IV), who later sold his half interest in the property to his brother John Miers Burton for $1,300 in 1860. The 1868 Beers atlas indicates the presence of both the gristmill and sawmill (Figure 4). John's ownership was then passed on to his wife Lavinia when he died in 1875. That same year, Lavinia sold her newly acquired interest to Joseph B. Betts for only $800 Carter 1980: 6). Benjamin Burton of Daniel continued to own the other half interest in the mill site until his death in 1888. His brother Peter Robinson Burton then bought the property at auction for just $152. Peter acquired sole title to the property when he purchased the remaining half interest from Joseph B. Betts for about the same amount of money the following year (Carter 1980: 7). The fact that the entire property was purchased for only $304 between 1888 and 1889, when it had been worth at least $1,600 in 1875, suggests that both mills either had been destroyed by fire, a flood, or were demolished by that time. In any event, they were either no longer standing or in such a state of disrepair that they no longer could function.

Peter died in 1892, having apparently made no improvements to the property, as it was sold at auction in 1893 to Charles B. Houston, a partner in the Houston, Perry & Co. Millsboro Box Factory, for only $110 (Carter 1980: 7). In 1896, the mill property was sold to Joseph E. Betts, who rebuilt the gristmill and milldam in the same year (Carter 1980). Betts sold the property in 1908 to Mr. and Mrs. Alexander West. Two years later, the Wests sold the property to John C. Betts. Betts retained the property for 12 years, until he sold it to Wilford B. Warren and

Plate 1 Aerial View of Project Area.

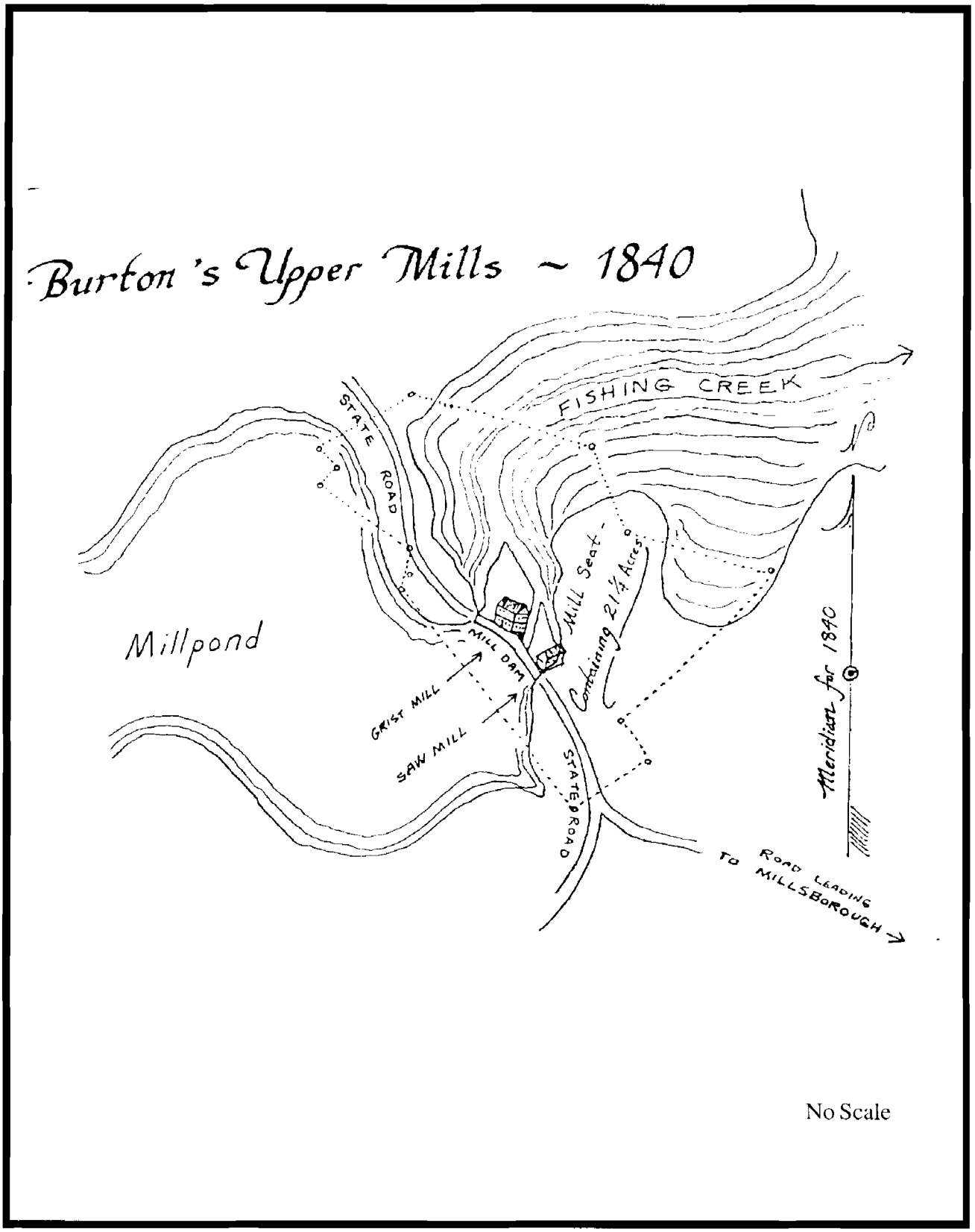

Figure 3 1840 Survey Map of Betts Pond Mill Site (Source: Carter 1980).

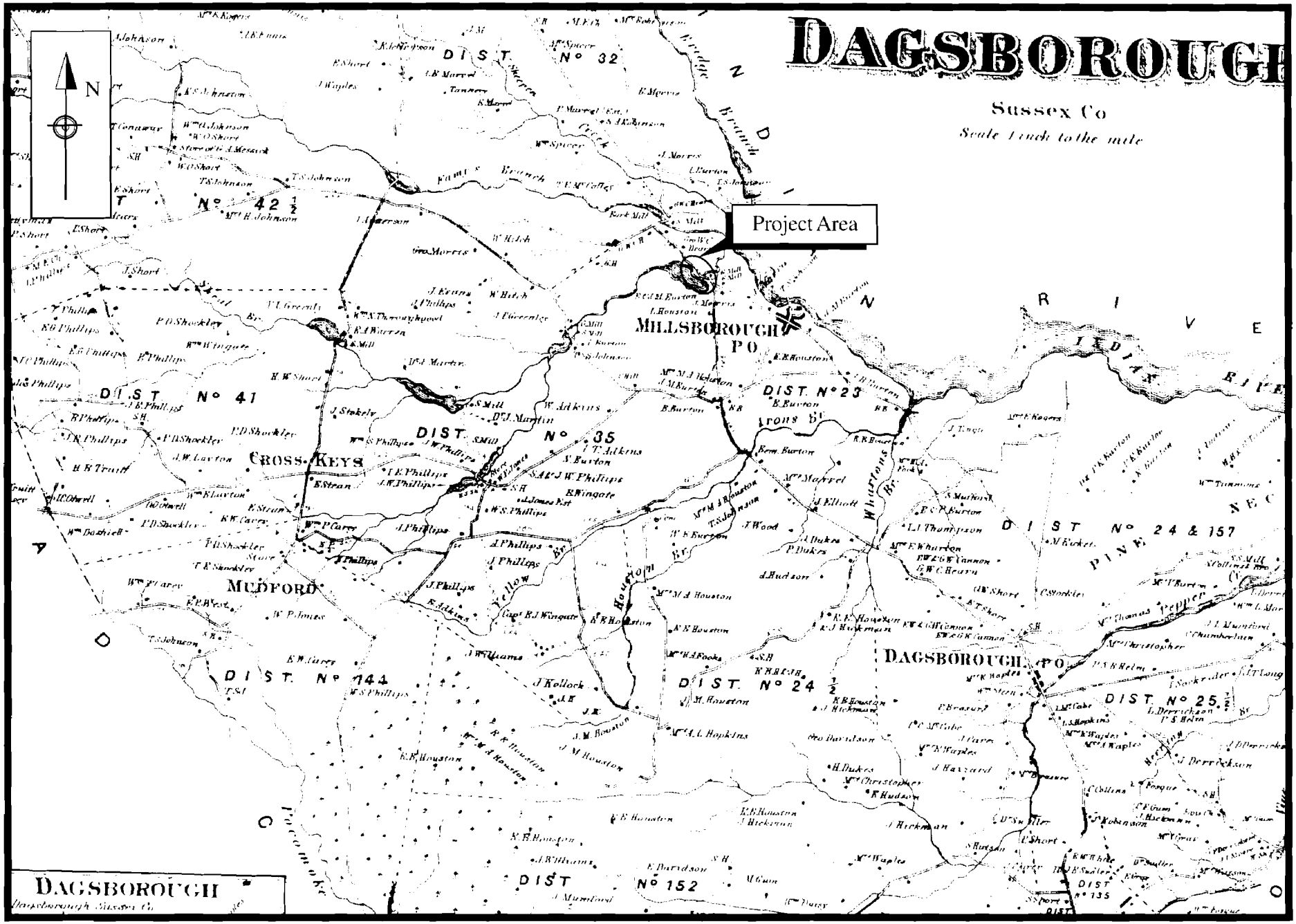

Figure 4 1868 Map Showing B. Burton's Saw and Gristmills.

Charles H. Peck in 1922. A year later, Warren bought out Charles Peck's interest and remained the sole owner for more than 40 years (Carter 1980). The property was willed to Warren's children and has remained in the Warren family to this day (Ralph Warren et al., personal communication 2004).

Wilford Warren was born in Robbins, Delaware, a small town situated between Georgetown and Ellendale (Plate 2). He lived with his family in Avalon, New Jersey, where he made a living as a carpenter. He was employed building barracks at Fort Dix before moving back to Sussex County, Delaware, to settle. Wilford and his wife Clara May had six children. Gladys, Lester, and Allen were all born in New Jersey; Rowland was born in Allendale, Delaware; and Ralph and Ruth were born in Millsboro, after the family moved there in 1922 (Ralph Warren et al., personal communication 2004).

Ever since he was a young boy, Ralph Warren remembers that during storms or periods of high water, the family would open the mill dam's spillway gates to release water from the pond to prevent the road and surrounding homes and land from flooding (Ralph Warren et al., personal communication 2002). The older boys, Lester and Allen, ran the mill most of the time until about 1940–1941, when they joined the service; afterward, Ralph and Rowland operated it. The boys kept the mill in working order by conducting general maintenance that included changing the belts, sharpening (roughing) the stone, and making sure it was clean (Ralph Warren et al., personal communication 2004). Ralph noted, "When it was in use, the mill had this rhythm to it. When the water would come in through the mill, the whole place would sort of vibrate and move along with it" (Ralph Warren et al., personal communication 2004).

The mill operated by the Warren family produced corn meal for feed. The corn milled here was grown by local farmers and brought to the mill via horse and wagon, initially, and later via truck (Ralph Warren et al., personal communication 2004). In its later phase (circa 1942), the mill was rented out to a local miller and remained in operation until circa 1945–1946. It essentially stopped production when it became cheaper to import corn meal (Ralph Warren et al., personal communication 2004).

The extant mill once had a chimney on its east side until sometime after 1949, when a car ran into it, causing the chimney to collapse. The chimney was never replaced, but the damage to the structure was repaired (Plate 3). A turbine provided power to the mill with the amount of water flow regulated by hand-operated gates; the first was located between the pond and headrace and the second at the turbine. The gate for the turbine was used to regulate the flow of water to the turbine wheel and, therefore, the power provided to the main shaft for the belt and pulley system. The gates were closed at the end of the day and the turbine shut down. The closed gate at the millpond would allow the level of the pond to rise again for the next day's use. The last time the mill operated, the gate at the millpond was closed, but not the one at the turbine. The next day when the gate at the millpond was opened, the water rushed into the open turbine pit and the pressure of it forced the wheel out of the socket, sending it crashing into the wall. This event officially ended the use of the mill. However, according to Ralph Warren's estimates, it would not take a significant effort to bring the turbine and the mill back to working order (Ralph Warren et al., personal communication 2004).

Plate 2 Wilford Warren in 1964 (Source: Ralph Warren).

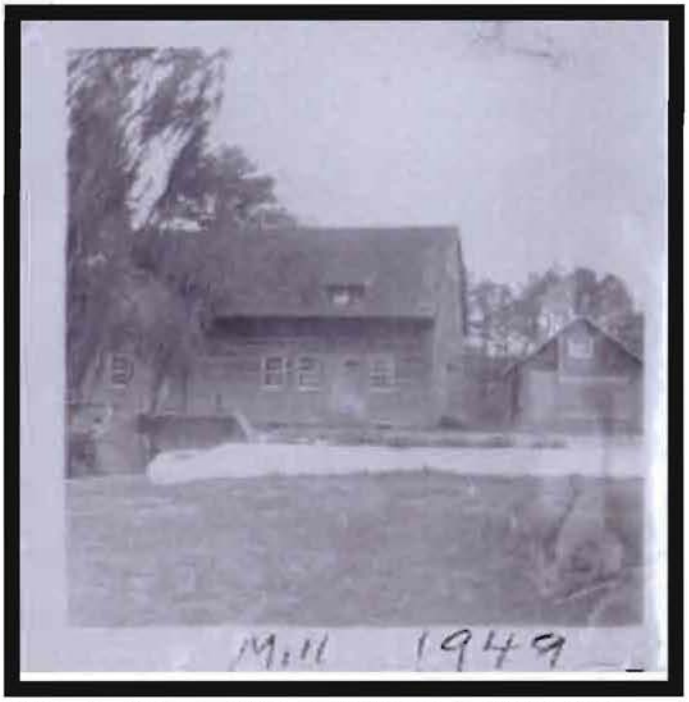

Plate 3 Warren Mill and Garage in 1949, View Looking North (Source: Ralph Warren).

The house where Rowland Warren currently resides, located on the south side of the road just southeast of the mill, was once the old granary (Plate 4). Both Rowland and his brother Ralph believe that the structure was moved to its present location around the time the mill burned (circa 1923). Although they do not know its original location, a 1917 map of the area shows a structure situated on the same site as the present mill, along with a second structure just to its north (Figure 5). The second structure was most likely the granary, as its presence is no longer indicated on a 1938 map of the area (Figure 6). The family originally lived in a house a few doors down the road. After the death of his wife, Wilford took the four boys and moved them into the refurbished "granary" structure. Gladys was married by then, and she took sister Ruth to live with her (Ralph Warren et al., personal communication 2004).

Wilford and his oldest son Lester built the house, currently occupied by Ralph and Betty, during the 1950s (see Plate 4). Before Ralph and Betty moved in to the house, Betty's sister and her husband lived there. Ralph and Betty moved to their current house when Ralph retired from the U.S. Army in 1967. Ralph entered the army in 1947, and served in Germany in January 1949. After marrying Betty in 1961, they moved back to Germany, where they lived for two years with their daughters Tina and Tara (Ralph Warren et al., personal communication 2004).

The date of the current barn, located adjacent to the mill, is in dispute. Ralph Warren states that the old mill burned shortly before 1930, while the family was at a carnival, and was rebuilt sometime after (Ralph Warren et al., personal communication 2004). According to a newspaper article by Ida Crist (n.d.), Allen Warren stated that the old mill burned in 1923, the concrete bridges were built in 1928, and that the mill was rebuilt in 1931. To confuse the matter further, the history compiled by Richard Carter states that the mill burned in 1924 (Carter 1980: 8). This date was based on a pencil notation next to an entry for Wilford Warren in the Sussex County Assessment Book for the First of the Sixth, 1924, which reads, "Building Burned" (Carter 1980: 17). A concrete footer in the mill is dated (January?) 1930 and features some names of the Warren children, including Ralph and Rowland; however, there is no other information written or carved into the footer (Ralph Warren et al., personal communication 2002; 2004). Thus, the mill building had to have been already built, or at least begun, prior to 1931.

According to Ralph Warren, his father constructed a reinforced cement bridge at the site of the current Bridge 526 (adjacent to the mill) in the early to mid-1930s. This detail is a correction to information printed in the 1999 Griffitt's report (Ralph Warren et al., personal communication 2002). Neither Ralph nor Rowland can recall exactly what the bridge looked like or was made of before their father built the reinforced concrete bridge (Ralph Warren et al., personal communication 2004). However, in the Ida Crist article, his brother Allen is quoted as saying that he vaguely recalls that the bridges at the time of the fire were wooden, and that one of them was partly damaged in the fire. This damaged bridge is most likely Bridge 526, given its proximity to the mill. Allen also states that his father built the concrete bridges in 1928. Ralph disputes all of these dates, saying that they were incorrectly reported, perhaps by his brother (Ralph Warren, personal communication 2004).

Bridge 526, prior to the current project improvements, consisted of a timber-and-concrete culvert with concrete abutments. It measured 10 feet long by 30 feet wide and included a timber deck

Plate 4 Residences of Ralph and Betty Warren (in Background) and Rowland Warren (to the Left) (Source: Ralph Warren).

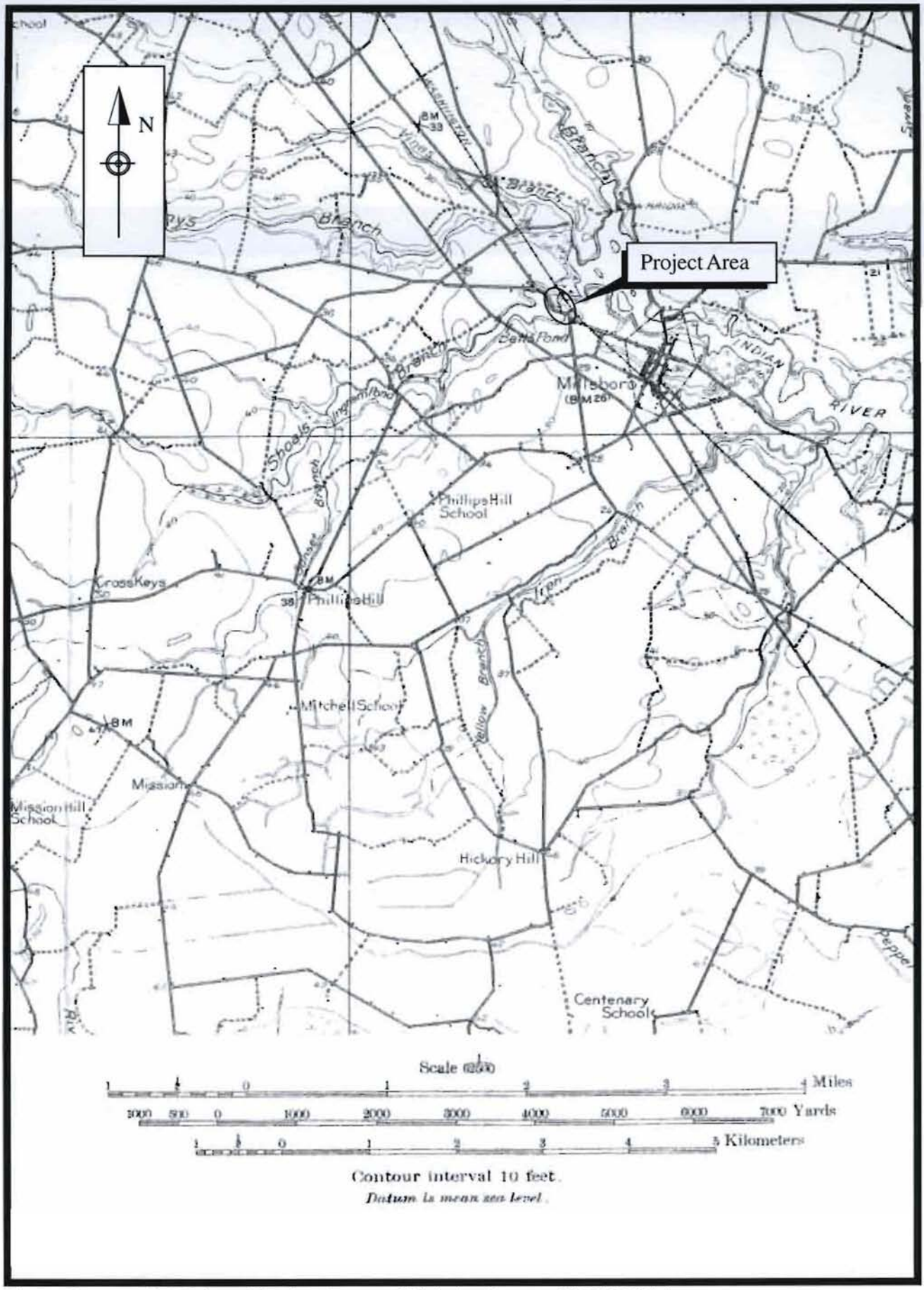

Figure 5 1917 Map of Project Area and Vicinity (Source: USGS 1917).

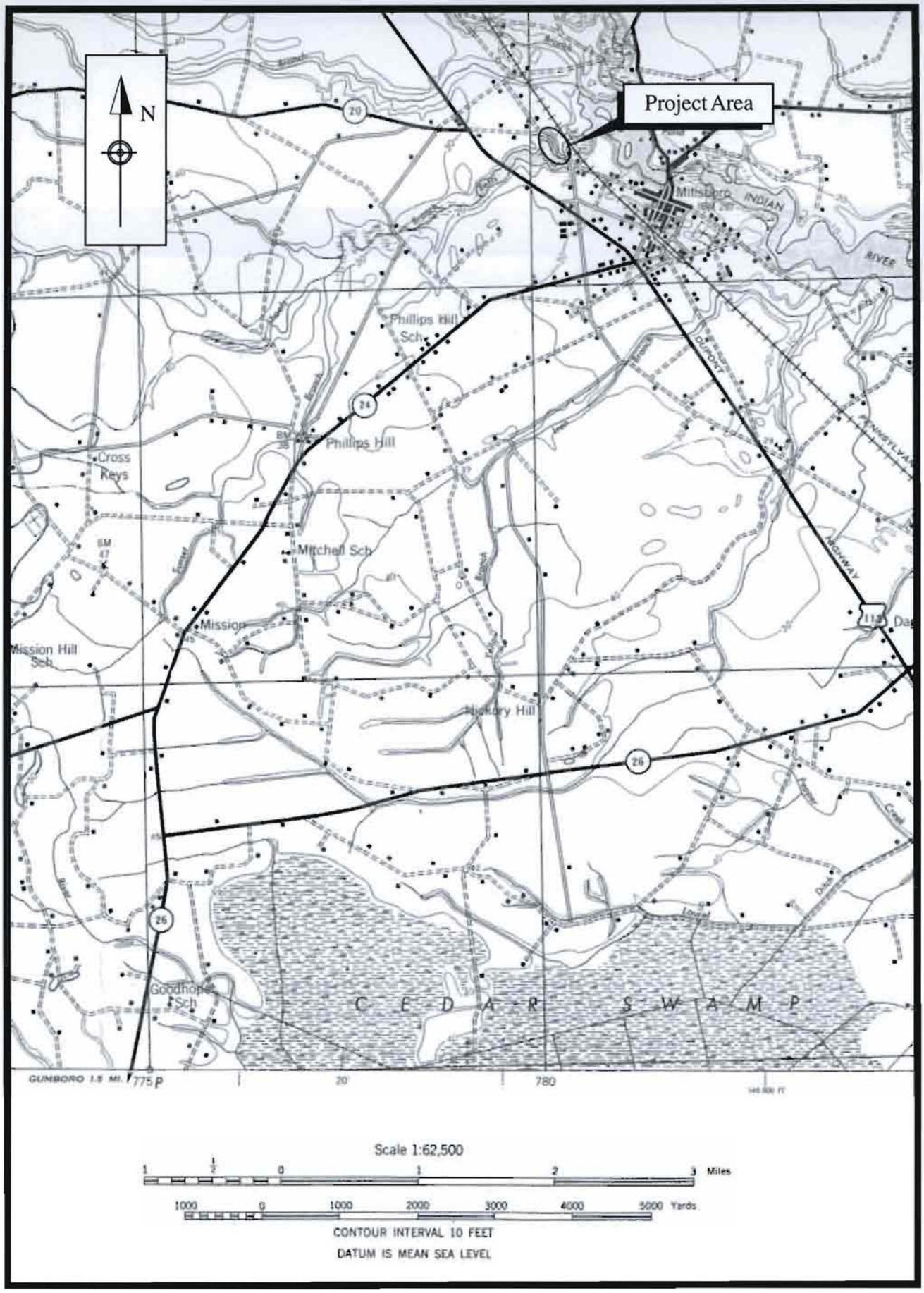

Figure 6 1938 Map of Project Area and Vicinity (Source: USGS 1938).

covered by asphalt. It has a timber frame superstructure on the pond side with a reinforced concrete box culvert section that extends beneath State Route 326 and under the Warren Mill (Griffitts 1999: 22). DelDOT has no record of the origin of the bridge, or if they had reconstructed and/or repaired any part of it. Griffitts points out that highway improvement plans from 1956 indicate major road improvements to sections of State Routes 326 and 86 (Griffitts 1999: 22). "It is possible that the section of Route 326 containing Bridge 526 was improved as part of some related but unrecorded project occurring within the same period of time. Such a project would have required the widening of the culverts and the addition of the reinforced concrete portion to Bridge 526" (Griffitts 1999:22). Another possibility is that the reinforced concrete bridge Ralph Warren refers to is the culvert and spillway improvement, as it would coincide with the Warrens' rebuilding of the mill structure in the early 1930s. The date on the timber section of the bridge is unknown, and may even predate the Warren family on this property. Records indicate a similar construction for Bridge 527, which contains a spillway into an alternate channel to control flooding. An 1840 map indicates another mill located near this second spillway. Ralph has found a few architectural artifacts in the area that may suggest an earlier structure nearby (Ralph Warren, personal communication 1999; Griffitts 1999). In addition, several structural timbers, located approximately 50 feet north of the spillway, were clearly visible just below the water during URS' preliminary walkover in 1999.

In addition to its lengthy history as the power source for the various mills here, local residents have long used Betts Pond as a swimming and fishing hole. A lesser-known fact about this pond is that it was also used as a baptismal pool for a local African-American Church in Millsboro (Ralph Warren et al., personal communication 2004). The congregation would gather at Betts Pond, behind where the granary now sits, and welcome new members (see Plate 4). The baptismal candidates used the mill to dress for ceremonies, and then in processions crossed the road to the pond, where new members were christened into the faith. According to Rowland and Ralph, the last baptism occurred here about 40 years ago.

The Warrens currently own 21 acres of land, plus the 55-acre pond, on which they pay taxes and property insurance (Ralph Warren et al., personal communication 2002). However, according to Ralph, DelDOT claims ownership of the two bridges, the road (State Route 326), and a four-foot easement on either side of it. The Warren family claims that their property insurance and tax bills indicate that they still pay on *all* of the land. Currently, the landowners living adjacent to the pond only own the land up to its edge, but no part of the pond itself. Regardless, most of these people still use the pond for various recreational purposes, posing a problem to the Warrens, particularly in regard to insurance liability issues. For this reason, the family does not condone use of the pond by local residents. In addition, the portion of the pond located west of U.S. 113 is completely cut off from use due to the culvert/dam created by DelDOT during improvements to U.S. 113 (see Figure 1). This portion is now inaccessible, as the property owners surrounding the western part of the pond have refused access for the Warren family, creating additional liability problems (Ralph Warren et al., personal communication 2004).

Upkeep of the mill and pond has fallen almost solely into the hands of Ralph and Betty Warren, a charge that they have taken very seriously and performed to the best of their ability. For Ralph especially, it is a labor of love. While the mill building is still relatively intact, with many of the original features (grain hopper, chutes, turbine, etc.), there are many items of concern that

restoration professionals should address (i.e., potential structural implications, new roof, sag in the floor, etc.). There are currently six owners of the mill, making decisions difficult at this time. However, Ralph, Rowland (both partial owners), and Betty have expressed their desire to preserve the mill for future generations. In addition, other local parties would also like to save the mill. Ideally, Ralph would like to see the mill rehabilitated using traditional construction materials, such as large wood summer beams like those that originally formed the structure of the building. He believes that if the mill were to be restored to working order, it could potentially be used to generate electricity. The Millville Historical Society expressed some interest in saving the mill at one point; however, there has been no further discussion of the matter (Ralph Warren et al., personal communication 2002 and 2004). Presently the family would like the state to provide some form of protection for the mill, as the new road passes within four feet of the structure, creating concerns about the mill's further deterioration caused by increased traffic (Ralph Warren et al., personal communication 2002). The Warren Mill has been on the National Register/State Register (#78000923) since 1978, and the mill building, raceway, pond, converted granary, and surrounding land have been recommended together as a historic district (Griffitts 1999).